Survey Through Satellites to Study Economic Condition of Villages

495. DR. NAUNIHAL SINGH: Will the PRIME MINISTER be pleased to state:

(a) what steps Government have taken to launch a country-wide-survey through satellites to study economic conditions of villages to devise a suitable action plan for eradication of poverty;

(b) whether any results have been achieved so far, if so, the details thereof;

(c) what are the estimates of expenditure involved in this programme; and whether it has been provided specifically in the Eighth Plan; and

(d) whether such a survey has been conducted in any country of the world, if so, indicate the names of such countries and the results achieved?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (SHRI BHUVANESH CHATURVEDI): (a) and (b) Considering the potentials of remote sensing data available from the Indian Remote Sensing Satellites—IRS-1A/1B, Department of Space (DOS) had initiated remote sensing based integrated studies for land and water resources management in 21 selected districts falling in 13 States and representing diverse terrain, agroclimatic zones and social and cultural practices. The objective of this study was to generate locale specific action plans by integrating thematic maps such as landuse/cover, wasteland, forest cover, surface water, ground water potential, drainage, soils and geology, derived from satellite data, along with meteorological data and socio-economic information. Such action plans have been generated for selected watersheds in six districts namely Anantpur, Bhiwani, Jhabua, Ahmednagar, Kalahandi and Dharmapuri.

Based on the encouraging results achieved from the above efforts, the Planning Commission, Government of India has extended this project (Integrated Mission for Sustainable Development) to cover, in all, 157 districts for generation of such action plans towards sustainable development of natural resources at village/block level. These districts are affected by recurrent droughts/floods and are economically backward. The Integrated Mission for Sustainable Development is being carried out in close cooperation with all concerned Central/State Government agencies, Agricultural Universities and Research Institutions. The Statewise details of the districts taken up under the project are as follows:

Sl. No.	State	No. of Districts
1.	Andhra Pradesh	15
2.	Arunachal Pradesh	1
3.	Assam	2
4.	Bihar	7
5.	Goa	1
6.	Gujarat	10
7.	Haryana	7
8.	Himachal Pradesh	5
9.	Jammu & Kashmir	4
10.	Karnataka	12
11.	Kerala	3
12.	Madhya Pradesh	10
13.	Maharashtra	14
14.	Imphal	1
15.	Meghalaya	1
16.	Mizoram	1
17.	Nagaland	1
18.	Orissa	7
19.	Punjab	3
20.	Rajasthan	19
21.	Sikkim	1
22.	Tamil Nadu	10
23.	Tripura	1
24.	Uttar Pradesh	18
25.	West Bengal	3
	Total No. of Districts	157

(c) The estimated expenditure for generation of action plans for one selected watershed in a district will be

Rs. 12.5 lakhs, out of which DOS will provide Rs. 9.00 lakhs and the concerned State will provide Rs. 3.50 lakhs. The necessary budget has been provided in the 8th Plan.

(d) While surveys using satellite remote sensing data have been carried out in many countries, to the knowledge of DOS, no other country has carried out intensive, integrated surveys on such a large scale as planned under the Integrated Mission for Sustainable Development. However, seeing the excellent results obtained in India, many countries have expressed their desire to understand this technique during the presentation of the preliminary results in the International Astronautical Federation's Symposium held a few months ago.

Development of Weather Forecast Satellite in the Country

496. SHRI H. HANUMANTHAPPA: Will the PRIME MINISTER be pleased to state:

(a) whether Government's attention has been drawn to the news item appearing in the press recently that Pakistani Scientists have completed the laboratory tests on a model satellite forecast on weather expected to be put into orbit next year;

(b) the steps taken to encourage our scientists to develop such a satellite; and

(c) the expected cost likely to be incurred to develop our own weather forecast satellite indigenously?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (SHRI BHUVANESH CHATURVEDI): (a) A Section of the Press has reported that Pakistani scientists have completed laboratory tests on a model of the country's second domestically developed satellite, Badar-2 which is to be put into orbit early next year. Badar-2 will be an improved model of the experimental Badar-1 weather satellite, which was launched from China's Xichang launch site in July 1990. Badar-1 was launched using a Chinese Long March 2E rocket and was being used to improve Pakistan's weather forecast and information system.

(b) India already has launched four INSAT-1 series of satellites and one second generation indigenously built INSAT-2A satellite. Each INSAT-1 and INSAT-2 satellite has the following meteorological payload.

(i) A very High Resolution Radiometer (VHRR) instrument for meteorological earth imaging with visible (0.55-0.75 m) and infrared (10.5-12.5 m) band channels with resolutions of 2.75 and 11 KM, respectively, with half-hourly full earth coverage and sector scan capability. The visible and infrared channel resolutions for INSAT-2A are 2 and 8 KM, respectively.

(ii) A data relay transponder with global receive coverage with a 402.75 MHz earth-to-satellite link for relay of meteorological, hydrological and oceanographic data from unattended land and ocean-based automatic collection-cum-transmission platforms.

INSAT-1D and INSAT-2A satellites currently located at 83 deg E and 74 deg E longitude respectively are providing VHRR imageries, weather forecasting and Data Collection Services. They are also being used for providing locale specific disaster warning service which has resulted in the saving of thousands of lives and livestock in the cyclone hit eastern coast of the country.

(c) All the INSAT's are multipurpose satellites and include state-of-art, meteorological payloads in addition to communication and TV broadcast services, thus meeting the nation's requirements. The cost of each multipurpose INSAT is around Rs. 75 crores.